

M97-Fraction/Decimal Conversions

Fraction to decimal: Divide the numerator (top number) by the denominator (bottom number) to find a decimal equivalent.

Ex. $\frac{1}{2}$ $2 \overline{) 1.0}$ $\frac{1}{2} = .5$

$$\begin{array}{r} .5 \\ 2 \overline{) 1.0} \\ \underline{-10} \\ 0 \end{array}$$

Place a decimal point and zeros to the right of the numerator then divide as with long division.

Ex. $\frac{3}{4}$ $4 \overline{) 3.00}$ $\frac{3}{4} = .75$

$$\begin{array}{r} .75 \\ 4 \overline{) 3.00} \\ \underline{-28} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

Ex. In $4\frac{3}{4}$, the whole number (4) will be carried with the decimal
therefore $4\frac{3}{4} = 4.75$

Decimal to fraction: the number of decimal places determines the denominator of the fraction.

Ex. .5 the 5 is in the tenths place. Therefore, $.5 = \frac{5}{10} = \frac{1}{2}$

Ex. .75 the 5 is in the hundredths place. Therefore, $.75 = \frac{75}{100} = \frac{3}{4}$

Ex. 4.75 the 4 is carried with the decimal. Therefore, $4.75 = 4\frac{75}{100} = 4\frac{3}{4}$

Exercise A. Convert the following fractions to decimals (round to thousandths)

1) $\frac{7}{8} =$

6) $3\frac{3}{5} =$

2) $\frac{5}{6} =$

7) $14\frac{2}{3} =$

3) $\frac{2}{3} =$

8) $6\frac{3}{8} =$

4) $\frac{11}{16} =$

9) $9\frac{1}{4} =$

5) $\frac{3}{7} =$

10) $5\frac{3}{7} =$

Exercise B. Convert the following decimals to fractions, then reduce

1) $0.6 =$

6) $4.23 =$

2) $0.78 =$

7) $13.986 =$

3) $0.007 =$

8) $10.8 =$

4) $0.93 =$

9) $134.45 =$

5) $0.025 =$

10) $1.004 =$

Answer Key

Exercise A

1) $\frac{7}{8} = .875$

2) $\frac{5}{6} = .833$

3) $\frac{2}{3} = .667$

4) $\frac{11}{16} = .688$

5) $\frac{3}{7} = .429$

6) $3\frac{3}{5} = 3.600$

7) $14\frac{2}{3} = 14.667$

8) $6\frac{3}{8} = 6.375$

9) $9\frac{1}{4} = 9.250$

10) $5\frac{3}{7} = 5.429$

Exercise B

1) $0.6 = \frac{6}{10} = \frac{3}{5}$

2) $0.78 = \frac{78}{100} = \frac{39}{50}$

3) $0.007 = \frac{7}{1000}$

4) $0.93 = \frac{93}{100}$

5) $0.025 = \frac{25}{1000} = \frac{1}{40}$

6) $4.23 = 4\frac{23}{100}$

7) $13.986 = 13\frac{986}{1000} = 13\frac{493}{500}$

8) $10.8 = 10\frac{8}{10} = 10\frac{4}{5}$

9) $134.45 = 134\frac{45}{100} = 134\frac{9}{20}$

10) $1.004 = 1\frac{4}{1000} = 1\frac{1}{250}$